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CLASSIFICATION SECURITY INFORMATION

C 12397

25X1A

CENTRAL INTELLIGENCE AGENCY

REPORT NO. [redacted]

INFORMATION REPORT

CD NO.

COUNTRY East Germany

DATE DISTR. 16 October 1952

25X1A
SUBJECT Electronic Instruments, [redacted]
Oberspreewerk

NO. OF PAGES 1

NO. OF ENCLS. 1 (27 pages)
(LISTED BELOW)

PLACE ACQUIRED [redacted] 25X1A

DATE OF INFO. ACQUIRED [redacted] 25X1C

SUPPLEMENT TO REPORT NO. 25X1X

[redacted]

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25X1A

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[redacted]

Germany

FDD Abstract of [redacted] 25X1A

Device for Determination of Inherent Noise of Crystal Detectors at Wavelength 10 cm; 16 pp; German; no date ; [redacted] 25X1A

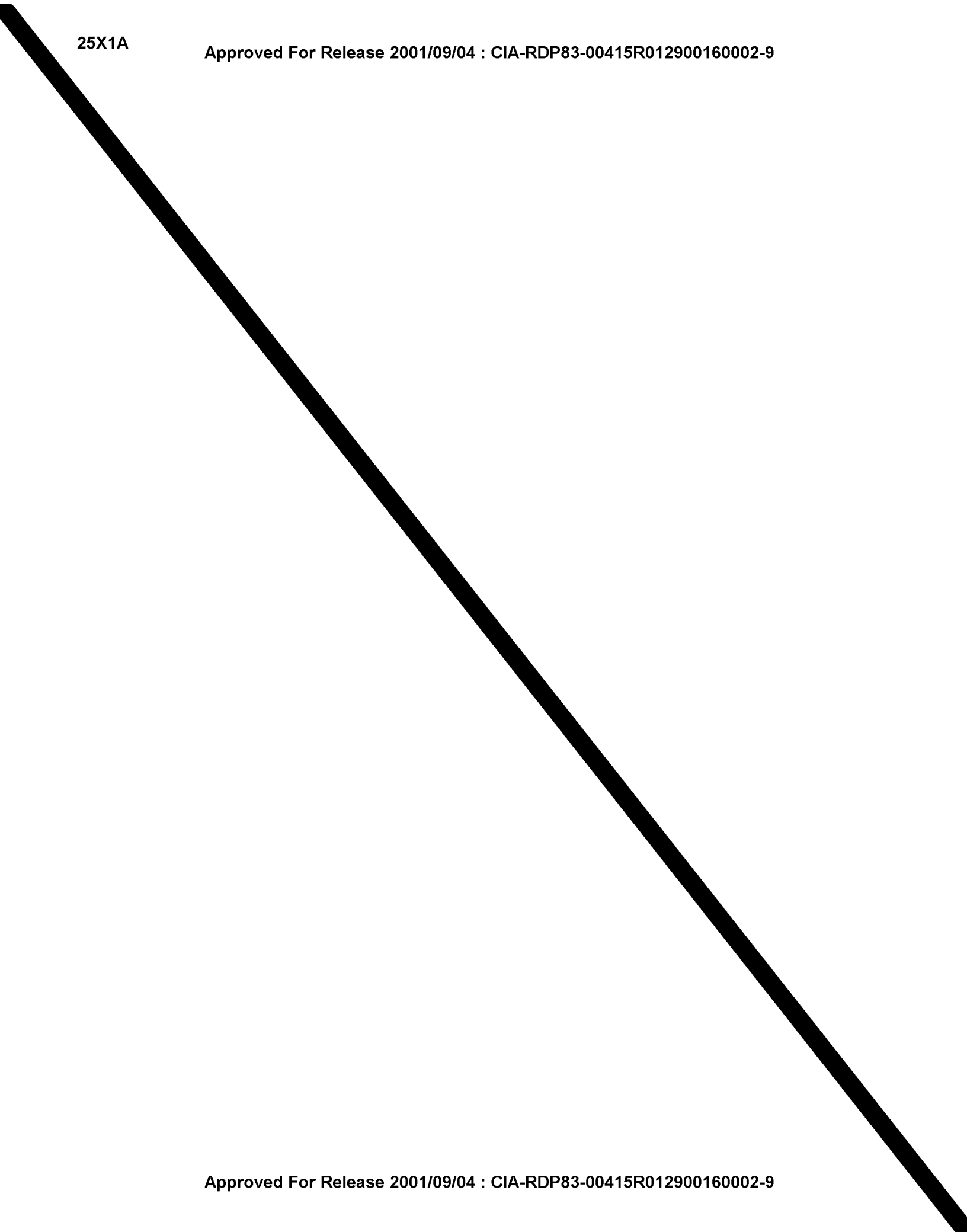
The device can determine the noise of detectors in mixing operation, by measuring the noise appearing at the output of the mixing head. Mixing operation was chosen because detectors are usually operated in this manner in the centimeter range. The noise measured includes all noise components which appear in this type of operation: IF-noise of the detector, HF components, and oscillator noise. To eliminate most of the oscillator noise, the oscillator was connected through a filter with very narrow pass band. Thus only the oscillator frequency appears, while the rest of the noise band is cut off. The device permits determining the noise properties in mixing operation and obtaining comparisons of the mixing properties of detectors by sensitivity measurements. The sum of the noise voltage is determined from the IF voltage at the output of the mixing head. The output voltage furnished by the rectifier is measured to obtain a measure for the operating point of the detectors. Measurement is carried out by determining the square of the noise voltage of the detector as equaling "p" which is the square of the noise voltage of the ohmic resistor. p can be measured with an accuracy of 40 %.

Device for Determination of Inherent Noise of Crystal Detectors at Wavelength 3 cm; 7 pp, German; no date; [redacted] 25X1A

This device operates on the same principle as the one described above. The device is still in the planning stage. It is to be operated with a sensitivity measuring transmitter.

25X1A [redacted] 25X1A

31 Oct 1952



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